

LETTERS TO THE EDITOR

Need for publication of all studies testing the SphygmoCor device

To the Editor: I was disappointed to read Dr. Goldsmith's reply [1] regarding the citation of unrelated articles as "validation" references for the use of the SphygmoCor blood pressure device (PWW Medical, Inc., Sydney, Australia). In his "response," Dr. Goldsmith accuses me of censoring others. This is incorrect.

I was invited to Sydney by the main proponent of the SphygoCor device to undertake research in 1995 and again in 1996 [abstract; Plunkett BT, et al, *Z Kardiol* 85 (Suppl 3):136, 1996]. While there, I observed actual intra-aortic blood pressures being recorded during cardiac catheterization in 15 patients, simultaneously with noninvasive SphygmoCor device measurements. The latter method did not provide me with great confidence in the use of the device for predicting central aortic blood pressure because the errors associated with the SphygmoCor device were substantial.

Furthermore, during my second trip, I was made aware of details of two additional studies that had also sought to test the SphygmoCor device. Both used invasive intra-arterial blood pressure data to recalibrate the noninvasively recorded SphygmoCor waveforms. Both studies demonstrated that the SphygmoCor device had substantial and increasing errors with increasing blood pressure values. Therefore, the device appeared least accurate in hypertensive patients.

None of these studies has been published, which is the reason I have felt a responsibility to the scientific community to generate some discussion about the inaccuracies inherent in this approach [2, 3], especially since some researchers have begun to apply the methodology with no validation data to support its use.

Dr. Goldsmith will surely join me in calling for data from *all* these studies, which date back to 1995 and 1996, to be made public so that researchers can draw their own conclusions about the accuracy of the technique.

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2. LEHMANN ED: Aortic pulse-wave velocity versus pulse pressure and pulse-wave analysis [letter]. *Lancet* 355:412, 2000
3. LEHMANN ED: Where is the evidence that radial artery tonometry can be used with a generalised transfer function to accurately and non-invasively predict central aortic blood pressure? [letter]. *J Hum Hypertens* 15:145–146, 2001

Reply from the author

I understand that Dr. Lehmann has significant reservations about the validation of the SphygmoCor apparatus. I do not share them. Let history (that is, future validations, which I call for as fervently as he does) be the judge.

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Elevated blood pressure predicts risk of acute rejection in renal allograft recipients

To the Editor: The findings in the paper by Cosio et al [1] are reminiscent of our data on the transmission of familial hypertension via the donor's kidney and its relationship with a higher vulnerability to kidney damage.

While Cosio et al showed that in renal transplanted patients arterial hypertension identifies patients at higher risk of acute rejections independently from renal function and other variables known to be associated with greater occurrence of acute rejections, in a similar study equally restricted to the first year after transplantation, we showed that familiarity for hypertension in the donor not only determined a higher requirement for antihypertensive therapy in the recipient [2], but also a greater kidney involvement during an acute rejection episode (as judged by blood pressure level and serum creatinine increase), without increasing the number of acute rejection episodes.